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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,042	05/08/2001	Randy D. Petrea	5236	2161

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EXAMINER
GOLLAMUDI, SHARMILA S

ART UNIT	PAPER NUMBER
1616	16

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/851,042	Applicant(s) PETREA ET AL.	
	Examiner Sharmila S. Gollamudi	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Receipt of Request for Continued Examination, Extension of Time, and Amendment C received on January 14, 2003 is acknowledged. Claims 21-36 are included in the prosecution of this application. Claims 1 and 4-20 are cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Katsura et al (5,941,369).

Katsura discloses a polyurethane film of .3 mm thickness (11.8 mil) with silver-zirconium phosphate (Note example 1 and comparative example 2).

*Note that the cohesive properties are inherent although not explicitly stated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krall et al (5976562) in view of JP 09002537. JP 11-028797

Krall et al disclose a polyurethane film of .25mm thickness with silver. The antimicrobial silver is embedded in and coated onto the polyurethane. (Note example and col. 2, lines 5-15). Krall et al does not include an organic bactericide or additives. The instant cohesive properties of the film are inherent.

Krall et al do not teach silver based zirconium phosphate.

JP 09002537 teaches a container exhibiting antimicrobial property incorporating silver based zirconium phosphate. JP teaches silver based zirconium phosphate provides less discoloration and deterioration. The reference teaches resin such as polyurethane. (Note abstract)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Krall et al and JP 09002537 since both teach silver-based polyurethane articles to provide an antibacterial effect. One would be motivated to use silver based zirconium phosphate since it provides less discoloration and deterioration as taught by JP 09002537.

Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krall et al cited above, in view of JP 09002537 in further view of Folden (5536258).

As set forth above, Krall et al disclose a polyurethane film incorporating silver. Krall et al does not include an organic bactericide. JP 09002537 teaches a container incorporating silver based zirconium phosphate since it provides less discoloration and deterioration.

The references do not teach the polyurethane film having different tacky properties with the incorporation of silver.

Folden teaches antimicrobial medical tubing connector. Folden teaches the application of silver coatings for implantable medical devices are effective in preventing infection (col. 4, lines 49-63). Folden also teaches one advantage of using silver a coating is that it provides a smooth, durable, and low-friction surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that Krall's polyurethane film containing silver would exhibit different tacky properties than a film not containing silver since Folden teaches silver not only functions as an antimicrobial but also provides a low-friction surface.

Response to Arguments

Applicant argues that Krall does not teach a polyurethane film since the film is melted and shaped into cup-shaped articles. It is argued that Krall does not teach the antimicrobial on the interior portion of the article.

Applicant argues that JP does not provide a suggestion of introducing the antimicrobial in the interior of the film.

Applicant argues that there is no motivation to combine Folden with Krall since Folden does not teach the inclusion of the antimicrobial in the interior portion of the film.

Applicant's arguments have been fully considered but they are not persuasive. Firstly the examiner points out that the Krall teaches that the polyurethane film were vapor deposited with silver and *then* melted; therefore the entire film contains silver. Secondly, it is pointed out that on column 4 Krall teaches coating the polyurethane with silver and then extruding the plastic to embed the active (silver) into the article to yield an antimicrobially effective product on every surface including the interior surface, which is emphasized in the abstract. Lastly in regards to the shape argument, a change in the shape or size of an article does not patentable distinguish an invention over the prior art since it is deemed an obvious modification to one of ordinary skill in the art. See MPEP 2144.04. Further, the examiner points out that the film is not formed into a cup as alleged by the applicant, rather the film is indented (col. 11, lines 1-3) and therefore retains flat shape.

In regards to JP, the secondary reference is relied upon for its specific teaching of silver-based zirconium compound. The primary reference teaches the broad aspect of the invention as discussed above. The argument that JP does not remedy Krall has been discussed above.

In regards to Folden, Folden is relied upon for its specific teaching that silver provides a low-friction surface. The primary reference teaches the broad aspect of the invention as discussed above. The argument that Folden does not remedy Krall has been discussed above.

Claims 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-028797.

JP teaches polyurethane film extruded with an antimicrobial agent, such as silver and antifungal agent (see page 3). The film is then coated onto a thermoplastic resin. The film has a thickness between 10-1000 microns and instant properties.

JP does not teach instant silver agent.

JP 09002537 teaches a container exhibiting antimicrobial property incorporating silver based zirconium phosphate. JP teaches silver based zirconium phosphate provides less discoloration and deterioration. The reference teaches resin such as polyurethane. (Note abstract)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine JP 11-028797 and JP 09002537 since both teach silver-based polyurethane articles to provide an antibacterial effect. One would be motivated to use silver based zirconium phosphate since it provides less discoloration and deterioration as taught by JP 09002537.

Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-028797 cited above, in view of JP 09002537 in further view of Folden (5536258).

JP teaches polyurethane film extruded with an antimicrobial agent, such as silver and antifungal agent (see page 3). JP 09002537 teaches a container incorporating silver based zirconium phosphate since it provides less discoloration and deterioration.

The references do not teach the polyurethane film having different tacky properties with the incorporation of silver.

Folden teaches antimicrobial medical tubing connector. Folden teaches the application of silver coatings for implantable medical devices are effective in preventing infection (col. 4, lines 49-63). Folden also teaches one advantage of using silver a coating is that it provides a smooth, durable, and low-friction surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that JP's polyurethane film containing silver would exhibit different tacky properties than a film not containing silver since Folden teaches silver not only functions as an antimicrobial but also provides a low-friction surface.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is (703) 305-2147. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose Dees can be reached on (703) 308-4628. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

SSG

April 4, 2003

MICHAEL G. HARTLEY
PRIMARY EXAMINER